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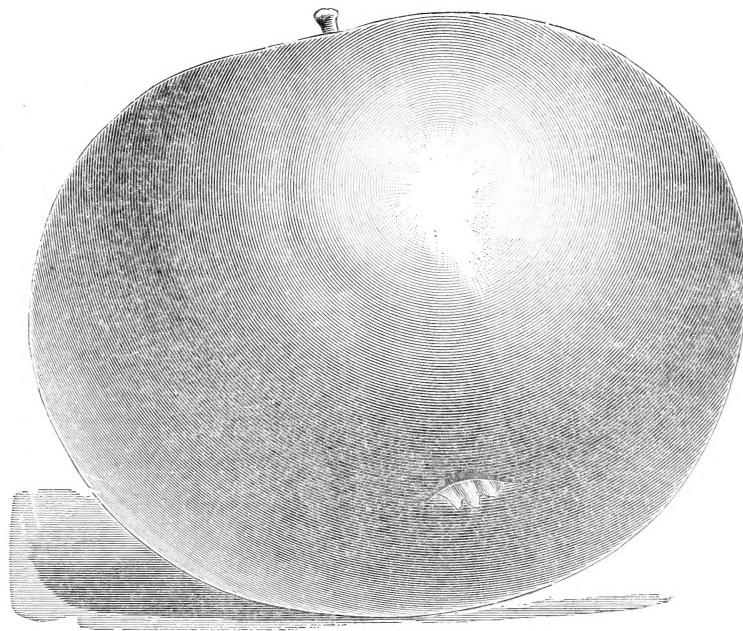
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U.S. DEPARTMENT OF AGRICULTURE

Patten's Circular.



Patten's Greening.—A seedling of the Oldenburg, seed grown near Portage, Wis., and planted by us in the fall of 1869, transplanted in 1874, has had only moderate cultivation and is now 30 feet in the spread of its branches. Has borne fruit 19 years. It stands on trying ground; has made a fine growth after the severest winters; limbs strongly shouldered, and fully as hardy in orchard as the Duchess. Fruit medium to large; often larger than Oldenburg; from light to dark green, sometimes shaded with red, flesh white, half fine, good eating and a superb cooking apple. Season generally, November to January. In northern Wisconsin, Minnesota, Maine, Vermont and Canada, it will be a good winter apple. Of all the new and old varieties of its season, for hardiness, bearing and quality combined, it has no equal. In 1892, when the foliage of so many varieties was severely in-

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Planters: Be Sure and Read Instructions on Planting.

jured, this old tree was absolutely perfect in leaf and bore an immense crop, holding it to perfect maturity, and surpassing any Duchess of Oldenburg of the same or any other age, on my ground.

Both in 1892 and 1894 the original tree was heavily propped, and in 1896 it bore an immense crop, carrying its fruit perfectly, clear up in the top of the tree, giving evidence that it was unaffected by the drought of the preceding years, its immense and perfect foliage insuring vigorous growth and making it resistant to nearly all extremes. It is now, at 28 years old, in perfect condition, and notwithstanding the great crop of 1896, it again set a heavy crop in 1897. The testimonials in reference to the value of this apple continue to multiply, and those who have had them longest in bearing, are amongst their most enthusiastic admirers.

Read the following testimonials and you will be convinced that we have the most positive assurance of the value of this apple:

TESTIMONIALS.

"The writer was given a few samples of Patten's Greening apples, exhibited by the originator, C. G. Patten, of Charles City, Iowa, at the horticultural meeting in this city last week, and took them home for the purpose of making into a pie, with a view of testing their quality for that purpose, and we do not hesitate to pronounce this variety equal to any we have ever tried."—Albert Lea Enterprise, December 13, 1894.

And this high endorsement by the editor of the Charles City Intelligencer, on December 18, 1896, who had again just sampled these apples:

"The above mentioned apple is one originated by Mr. Patten. We have tried it again just now in our home, and it has no superior as a baker, or for sauce or pies. It is fully equal to the best imported apples, and superior to most of them. We can recommend it in the strongest terms."

Under date of November 10, 1896, L. G. Clute, of Greeley, Delaware county, Iowa, writes:

FRIEND PATTEN:—I want to say that the one hundred Patten Greening trees I bought of you and planted in the spring of 1889, are giving the best satisfaction of any trees I have planted in forty years' experience in orcharding. I went out today and measured five trees in succession in the second row. Their circumference is 16 to 17½ inches each; one of these trees bore six bushels of apples. This same tree I bent a limb down to the ground on one side, stuck a stick in ring of tape line and to end of limb on opposite side is 18½ feet good measure. I cut a this year's growth from this tree and send you. You will see it measures 2 feet long. This certainly shows vigor. I filled a half bushel heaping full with twenty-five apples, and these, when taken out of the measure weighed 27½ pounds. I had many that measured 14½ inches around and weighed 18 ounces each; one weighed 20 ounces. They sell for nearly double any other variety.

For their age, I believe I have the finest one hundred trees in Delaware county. They are perfect in bark and leaf. None of

them blighted nor lost their leaves this summer, while twenty-five big Tetofsky trees right at the side of them looked as if fire had run through their tops, and not a leaf touched on the Greenings.

I have been very exact with my statements and measurements, and would like to have any man come and verify them.

I have a large quantity of these apples in barrels and they are exceedingly attractive. I want all to get Greenings who plant apple trees in northern Iowa. Everyone who bought any of the apples wants some of the trees next spring.

Mr. Clute writes again June 6, 1897, following the severe freeze of May 31.

"My Patten's Greenings beat them all. They are as full of apples as last year and their abnormal growth is a surprise to everyone. Their heavy crop of leaves has kept them all right, while a Hyslop-Crab and a Minnesota Hybrid, very much like Hyslop, are as black as ink; their fruit all drying up. I expect more fruit on my one hundred Patten's Greening than on the other nine hundred bearing trees in my orchard."

Mr. Hinkley says:—

MARCUS, IOWA, June 23, 1896.

I like Patten's Greening and wish I had planted a few hundred of them.

BARABOO, WIS., November 1892.

C. G. PATTEN, Charles City, Iowa.

DEAR SIR:—The Patten's Greening trees you sent me six years ago have made a fine growth and seem to be perfectly healthy; they have borne for the past three years. I picked from one tree a bushel of fine apples, very large, and of uniform size. At the Wisconsin State Fair my specimens of the Patten's Greening attracted more attention than any other apple.

GEORGE TOWNSEND.

Mr. Townsend writes again in the fall of 1896:—

The Patten's Greening apple trees are all right; I like them better than any I ever had.

FARMINGTON, MINN., October, 1894.

I took first premium on Patten's Greening at our state fair.

W. L. PARKER.

Under date of November 19, 1896, Mr. Clarence Wedge, of Albert Lea, Minn., writes:

My esteem for the Patten's Greening grows each year, and next to Hibernal we have more of it than anything else, and next year there will be more of that in the four year (nursery) block, than any other variety. My best tree bore one barrel of apples—great, bouncing fellows; trees set six years; took first at state fair on them.

Mr. Addis Schermerhorn says:—

CEDAR TOWNSHIP, FLOYD CO., November 4, 1896.

Of the apple trees I bought of you five years ago, the Patten's Greenings are the most promising. They came into bearing this summer, and beside fruiting made a strong growth. They have left the only variety (Duchess) I had any faith in trying so far behind, I went back to Mr. Patten and gave him an order for what I consider the best tree and apple, Patten's Greening.

Mr. Schermerhorn has been a member of the Board of Trustees of the Iowa Agricultural College for the past five years.

The following is from the pen of the veteran horticulturist, J. S. Harris, of LaCrescent, Minnesota, in "Farm, Stock and Home," of Minneapolis, March, 1893:

PATTEN'S GREENING.—This variety of apple is now so well disseminated, and is doing so well in every locality where it has been tried, that the editor of this department feels safe in recommending it for more general planting. The tree appears to have inherited the hardiness and fruitfulness of the mother parent; and has derived an improved flavor and keeping qualities from some other source. It is a somewhat stronger grower than the Oldenburg, has large, thick foliage, and the limbs are strongly shouldered, capable of resisting strong winds and sustaining a great weight of fruit. The variety is doing well in Iowa, Wisconsin, South Dakota and wherever planted in Minnesota. At Baraboo, Wis., Albert Lea and Waconia, Minn., orchards where almost every variety blighted, it was entirely free from blight. The fruit is fair for eating from the hand, being superior to most of the Russians of its season, and is unsurpassed for cooking. Have kept this apple through January and February.

J. N. Prouty writes:—

HUMBOLDT, IOWA, December 16, 1896.

I saw Patten's Greening at the Minnesota State Fair last fall and thought them the most valuable apple on exhibition. Send me some of the trees next spring.

CARVER COUNTY, MINN., November 22, 1896.

C. G. PATTEN, Charles City, Iowa.

DEAR SIR:—My Patten's Greenings are the most promising trees I have; made a fine growth; were full of apples of large size. I have some in my cellar; they are keeping fine. They are coming rapidly into favor in this vicinity. A. D. LEACH.

BUENA VISTA COUNTY, IOWA, October 29, 1896.

DEAR SIR:—In the spring of 1888 I bought grafts of you, among them Patten's Greening. Trees of these Patten's Greening have fruited for four years. As a tree I consider it one of the best, and the fruit is very large and good. Some of the apples weighed over a pound. I have some in my cellar now. W. E. GROOM.

HARDINESS AND GENERAL VALUE CONSIDERED.

The testimony of Mr. Andrew Peterson, of Waconia, Minn., about thirty miles west of St. Paul, is of the highest value. He is authority all over Minnesota, and his experience with large number of the Russian apples extending from fifteen to twenty-five years is more often quoted and more generally relied on than any other experimenter in Minnesota, and he puts the Greening ahead of all, not excepting the Hibernal that is so highly prized at the north. See what he says:

"Patten's Greening is the best of all; it is hardy and doesn't blight and is a good bearer, and apples hang well to the tree."

CRESCENT CITY, IOWA, January 28, 1892.

DEAR SIR:—The N. W. Greening, Mann, Ben Davis, etc., are in bad shape, and even the wood of the Duchess is a good deal discolored. One thing that pleases me, and will please you, no doubt, is that the Patten's Greening is all right, with good, bright wood. H. A. TERRY.

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For Trimming, Read Again Under Instructions.

Samuel B. Green, professor of Horticulture in the University of Minnesota, says in "Farm, Stock and Home:" "We found Patten's Greening fruiting heavily on trees set six years. This is the second year it has fruited; the tree is hardy, a good grower, and an early and profitable bearer. It is a winter apple of good size and has never shown blight in this place." The year following the tree bore nearly one bushel of apples.

FAYETTE COUNTY, IOWA, 1893.

In the fall of 1893, Isaac Johnson writes: "I bought six Patten Greening trees three years ago and they are good ones. I took first premium on this apple at our county fair."

The following is from J. S. Trigg, editor of the Rockford Register, of Rockford, Iowa, in his issue of January, 1891. Mr. Trigg is a careful observer, and an earnest lover of good fruit:

PATTEN'S GREENING.—Three years ago, we first saw this apple growing in the nursery of C. G. Patten, its originator, at Charles City. Loaded with handsome fruit and hardy as a crab, it attracted our attention at once. Since then we have watched it closely, both the parent tree and the nursery stock. It has been entirely free from blight; has borne well every year. There is no question as to its hardiness and productiveness and special value as an early winter apple for Iowa. Sauce made from this apple December 15th, was in every way superior in flavor to that made from the Northern Spy at the same time. It is the nearest approach to a reliable and desirable winter apple for this latitude of anything yet discovered; and deserves the attention of every fruit raiser.

Good Peasant, (The True)--This is without doubt the most valuable of all the Russian apples yet introduced. It is very hardy, free from blight and superior in quality. Its color is good, being striped and splashed with dark red, which often covers the entire apple; flesh very tender, of an agreeable, pleasant acid, which makes it a desirable eating apple. In season here and north from November to February. This apple is continually growing in popularity; it is medium in size and nearly oblong conical; very slightly oblate. It is not the Good Peasant that has been presented to the public by Professor Budd in the last eight or ten years, as during that time he has either exhibited or described at least three different apples as Good Peasant. This apple has sometimes been confounded with the Anisim, which is described by Dr. Shroeder, of Moscow, Russia, as "medium, flat, ribbed, green and yellow, bright red next the sun." The same authority says of Good Peasant: "Oblate form, fine quality."

Those who have seen the Anisim as sent out by Professor Budd, know that it is not flat, but slightly oblate, conic and never yellow, so that it is not the Anisim, but may be the Good Peasant. At any rate, if you wish the true Good Peasant, it will be safe to get them from the original stock as introduced into this country.

I have been the principal disseminator of this apple and have kept it pure.

Arthur.—Very hardy, valuable, annual bearer, pleasant acid, November to February; original tree bore fifteen successive years. I consider this both in tree and fruit one of the best of our hardy varieties. Its foliage is about perfect. And combining freedom from blight with good quality, and persistence in bearing, makes it very desirable.

Malinda.—A Vermont seedling of great hardiness; is now bearing in many places in northern Iowa. A good eating apple from January to May. There are scores of farmers in Floyd, Mitchell, Cerro Gordo, and Worth counties, who have had this variety from eighteen to twenty years, who speak in high terms of it. Trees at Rochester, Minn., twenty-five to thirty years old, bear well every year. The trees last mentioned are top worked.

Mr. A. J. Phillips, of Salem, Wis., a fruit grower of more than ordinary experience and observation, says, after eating them in 1892: "If this tree proves as hardy as the Oldenburg, it will prove a God-send to the north."

Elmer Reeves, Waverly, Iowa, says: "I have the apple. Send me all the cions you can get that you are sure are genuine."

Three neighbors in Floyd county have trees about twenty years old. They have been in bearing several years, and all are much pleased with both trees and fruit.

Nearly all count them as hardy as the Oldenburg, and an excellent, long-keeping apple.

John Harroon, Portland, Iowa, has several bearing trees, and he says: "The trees are perfectly sound, and fully as hardy as the Oldenburg; bear annually and commonly heavy; think them the finest trees ever grown in the northwest, and the apples as fine to keep and ship as were ever grown here."

In order to meet the demand for this valuable winter apple sooner than trees can be grown from the root grafts, we have "top worked" it on the very hardest stocks, and so have trees that are adapted to all parts of the country. The Patten's Greening, Good Peasant and Malinda, have done more to make apple growing an assured success in the north, than has come from all other sources in the last fifteen years.

PLUMS.

Baker or Stoddard.—A true native; one of the largest native plums known. It is of a light, pinkish-red color, very handsome, with a tough skin, with only a trace of sourness or acridity in it; flesh firm; one of the best for home use and market.

Hawkeye.—Originated in southwestern Iowa; the originator, H. A. Terry, says of it: "Fruit very large and of excellent quality; tree is a pure native; a fine grower and perfectly hardy—even in northern Minnesota. It is moderately productive and one of the best for market, and succeeds wherever it has been tried."

As grown here, the fruit is more like peaches in size than like ordinary plums. It is a very valuable variety.

Forest Garden.—Very early, very hardy, large, good, and will please the grower.

Rockford.—A pure native plum, perfectly hardy; much more so even than De Soto. Resembles the German Prune considerably in color and texture of flesh; sweet, nearly free-stone, great bearer; one of the very best.

In addition, we grow more or less of the following: Hammer, Tatge, Barnsback, Knudson's Peach, Wyant, Ocheeda, Cheney, De Soto and others of much promise.

PEARS.

This fruit is still an experimental one in a large part of Iowa, but it is so desirable that a few of the best adapted varieties are enumerated.

Among them we mention that excellent variety, the Flemish Beauty, Keiffer, for the central and south, and Longworth, Bessemianka, and No. 9 M., for the north.

The Lincoln and Longworth are, perhaps, the most hardy American pears, the former originating in Illinois and the latter at Dubuque, Iowa.

GOOSEBERRIES.

Downing.—One of the largest of the American varieties, whitish green, and of best quality. The bush is a strong, stout, upright grower, and quite prolific and healthy.

Houghton.—An American sort. Productive, free from mildew. Fruit medium, smooth, pale red color, tender, sweet and excellent flavor.

Champion.—It looks now as though this berry would supersede the long-time popular Downing, being more hardy, with less thorns, and a far better habit of bush. In fact, it is about the most perfect all around bush of any of our hardy American sorts. Season early, fruit large, amber, great bearer, famous for market.

Red Jacket.—A. H. Hall, Marshalltown, Iowa, says: "I wish I had a thousand Red Jackets. It is healthy and clear of mildew. It is certainly the best Gooseberry yet introduced."

"I have fruited Red Jacket for two years and so far it has no symptom of mildew, and is in every respect No. 1.

G. A. IVENS, Iowa Falls, Iowa.

"The Red Jacket is the best gooseberry I have ever tasted—good flavor, thin skin, tremendous cropper, uniform size."

J. WALTER, Zanesville, Ohio.

Columbus.—Magnificent, new, extra large, white, good bearer; bids fair to be of great value; so far the largest of American sorts that we have tried, and strongest grower.

CURRENTS.

Fay's Prolific.—A. Branson, West Branch, Iowa, says: "It is very large; fine flavor, not as acid as some varieties, has a long stem and is much more rapidly picked. Its beauty and excellence are universal."

Victoria.—A splendid variety and very valuable, ripening, as it does, considerably later than some others. Bunches extremely long; berries of medium size, brilliant red and of excellent quality.

White Grape.—The best white currant for table use; bunch moderately long, berry very large, whitish yellow, sweet or mild acid; bush spreading, moderate grower.

If you would be surprised at the size and excellence of gooseberries and currants, and raspberries as well, don't fail to enrich the ground and thoroughly cultivate or mulch the plant.

In addition we have the well-known Cherry, Red and White Dutch, Long Bunch Holland and Prince Albert.

RASPBERRIES.

Older.—R. D. McGeehan, of Atlantic, after a four years' trial, reports it superior to any black cap he has ever grown. "Last season it produced fifty per cent. more than any other raspberry I had. It is decidedly the richest and best berry when canned that I ever tasted." Its abundant foliage enables it to resist drought to a remarkable degree.

Mr. S. V. Ballard, of Wisconsin, says: "Its hardiness fits it to withstand all winters, as far north as the Wisconsin line (where I am growing it) and perhaps as far north as Lake Superior."

It is perfectly drought proof; always ripening all its fruit into fine berries, when Gregg, Ohio, Tyler, Doolittle and Hilborn will dry up and not half of them be fit to pick.

Berries average larger than any other the season through; are coal black, with the thickest and richest of juice, and smallest seeds of any black cap, hence is the best for table use and canning.

Professor Budd says it is the best black cap we have in hardness of cane and quality of fruit; the surest bearer we have ever tried. It remains all right when nearly every other variety kills back. As to productiveness and quality it has no superior. Mr. Reeves, of Waverly, in northern Iowa, also claims it to be superior to all others that he has tried.

STRAWBERRIES.

Warfield, (Pistillate.)—J. M. Edwards & Son, of Wisconsin, says: "This, we believe to be the best strawberry for general cultivation. Plant, a strong, healthy grower, making an abundance of new plants that root deep, enabling them to stand an unusual amount of dry weather. Fruit of good size—dark, glossy red, firm, of good quality, splendid shipper and very productive."

W. O. Willard, Grinnell, Iowa, says: "All points considered, the Warfield is probably the most promising market variety in cultivation; vigorous, hardy, productive, good size and quality; an excellent shipping berry."

M. A. Thayer, ex-President of the Wisconsin State Horticultural Society, has twenty acres of this variety planted for market. Judging from the reports from all sources it is the most prolific sort in cultivation. It is one of the very best with us.

Beder Wood, (Staminate.)—W. O. Willard, Grinnell, Iowa, also says of this variety: "It is very productive and valuable for home use. A stocky and vigorous plant; berries large and of good quality. An excellent variety to plant with Warfield."

Beder Wood.—R. D. McGeehan, Atlantic, Iowa, says: "The plant is satisfactory in every way. It is very productive; fruit large. It is decidedly one of the very best canning berries there is. It appears to succeed about everywhere tried."

I believe one acre planted with Warfield and Beder Wood will produce more marketable fruit than any other variety.

No Staminate variety has yet been introduced that is so productive when planted alone, or that has foliage that is so resistant to heat and unfavorable conditions. Its hardiness and rapidity of growth exactly fit for fertilizing the blossoms of such rapid plant makers as the Warfield and Crescent. We said the above in 1895 and see no reason to change our estimate of this sort on further experiment with it.

Beder Wood.—E. J. Scofield, Hanover, Wis., says: "We are pleased with this variety. We think it a very desirable early berry. It is in every way healthy and vigorous, and a great bearer. The berry is of large size. It continues in bearing a long time. The Crescent and Red Jacket are well known, standard sorts.

The Manwell.—The great attraction for the coming season will be the Manwell strawberry. It is easily in the lead among the newer varieties. At its home and at different stations where it has been tested, it stands without an equal, and after fruiting it we believe it to be the greatest of all the staminate varieties. It is firm, large size, glossy, crimson color, fine quality; much less acid than most varieties, making it among the best for shipping. Do not fail to plant the Manwell. It has a very large, healthy leaf, is a strong grower, heavy fruit stalk that carries an immense cluster of large, to very large berries. It has a long season, and judged by its behavior during the past remarkably frosty spring, it has an uncommon hardy blossom, and as we intimated above you will miss it greatly if you fail to plant the Manwell.

GRAPES.

Moore's Early.—A pure Concord seedling. The earliest, very large, good grape in cultivation; fully two weeks earlier than the Concord, which is a high recommendation for northern latitudes. Vine, hardy; berry, large; black, with a blue bloom; flesh pulpy, and of good quality. Should be in every garden.

Worden.—R. M. Kellogg, Ionia, Michigan, says: "I believe it is the richest and sweetest black grape grown in this country; perfectly hardy, fully as productive as Concord, large berry, and a week or ten days earlier."

Worden.—A. Branson, West Branch, Iowa, says: "Earlier than Concord, larger in berry and more compact in bunch; vine even hardier than Concord and as free from mildew. Decidedly superior to Concord for family use."

Worden.—W. O. Williard, Grinnell, Iowa, says: "Hardy, bunch and berry larger than Concord; decidedly richer and sweeter in flavor."

"The best grape in cultivation."—Silas Wilson.

Moore's Diamond.—Is very hardy and extremely prolific; bunches very large and compact; berry, greenish white, tinged with yellow; about the same size as Concord. In quality it is claimed to be superior to any other white grape, and ripens some three weeks earlier than the Concord.

Moore's Diamond.—Lewis Roesch, Fredonia, N. Y., says: "A strong grower, quite healthy and hardy; very productive; bunch and berry large; quality fine. Ripens a little before the Concord. Very desirable."

✓ **Green Mountain.**—Claimed to be the earliest, hardiest and best flavored early grape yet produced. Vine very strong, healthy grower, and very productive. A very fine white grape, skin thin and quality fine.

✓ **Janesville.**—Medium size, very early, hardy and productive. Especially valuable because of its extreme hardiness.

ORNAMENTALS.

Of these, space will permit us to name only a few.

Spirea Van Houttii.—This is one of the most superb, graceful and perfectly hardy ornamental shrubs, either for this latitude or elsewhere, being equally at home in Missouri or Minnesota, Wisconsin or Dakota. It blooms early and is annually bent to the earth with its mass of pure white bloom. It is equally suited to the lawn, the park or the cemetery, and no ground is complete without it.

Syringa.—What is said of the above is very nearly true of the Syringas, commencing to bloom about two weeks later, and the different varieties continuing in bloom for a long time. The Grandiflora is one of the latest to bloom and the largest flowered of all. Its numerous pure white flowers, as large as small roses, are very attractive. Coronaria, Gracilis and Gordonaria are very attractive, their fragrance perfuming the air for rods around. They are perfectly hardy.

Lemon Lily.—Its lemon colored, fragrant blossoms are among the early flowers of the season. It is a good bloomer and so beautiful and perfectly hardy that no ground should be without them. As they are so well suited to such a variety of soil and location, you run no risk in planting them.

INSTRUCTIONS.

Please Read Carefully.

Trees that have been in transit during freezing weather, and are likely to be frozen, should have water poured into the bale or box, so as to be sure the roots are thoroughly wet; then put them in the cellar or other place until the frost is all out of the roots, before exposing them to the air, and they will have received but little if any injury.

Trees should be pruned in proportion to the loss of roots in digging. It is safe to say that a very large percentage of the trees that fail to grow, is directly attributable to neglect in pruning at the time of planting.

All superfluous branches should be removed. Care should be used to preserve a central stem—and generally, only three to five buds of the previous year's growth should be left on each limb. Fruit trees should be leaned slightly to the southwest, with heaviest limbs on that side, and that balance preserved for the

first two or three years, by cutting off a portion of the limbs on the northeast, and you have gone far toward insuring your tree against the fatal "sun-scald" and promoting its general healthfulness and longevity.

TRANSPLANTING.—None need expect success in planting without a thorough preparation of the soil. It should be in as good condition as for a crop of corn or other hoed crop.

Dig the holes large enough to allow straightening out of all the roots, and deep enough to have the trees or plants at their natural depth; then pack firmly about the roots the fine surface soil, and if the ground is dry, use plenty of water. If wet, pack the earth very moderately upon the roots, leaving it loosely upon the surface.

Mulching with a few inches of coarse manure or litter, is essential to a good growth. And if the season is dry, the mulch should be removed and the ground well stirred two or three times during the first month after planting. Would you have your trees live? Then heed the above and plant well.

Would you have them thrive? Cultivate and care for them thoroughly until July 15th, and then let the weeds grow for winter protection; or, better still, sow buckwheat among them at the last cultivation.

Fall Planting.

We do not advise fall planting. In fact, we advise not to do it in the "cold north."

Persons living a distance from the nurseries, can not do better than to procure their stock in the fall, and bury for spring planting. Select a spot where surface water will not stand; dig a trench one or two feet deep for the roots—according to the number to be buried—sloping it up even with the surface for the tops. Now place a layer of trees in the trench, with the roots not too thick together, wet them thoroughly, cover with fine earth well up in the limbs, press it firmly on the roots and proceed with the next layer in like manner. Make the trench long enough so as to never put down more than three layers. Cover the whole tops as you proceed, with unfrozen earth. When so put down cover the roots with mulch. All kinds of deciduous trees, shrubs or plants, except strawberries, may be covered in this way with the most perfect success. Never bury them in bundles as received from the nursery, but open, spread out and wet the roots as before directed.

Strawberry plants cannot be successfully handled in the fall or planted after September 10th, and one dozen plants set in the spring will be of as much value as one hundred set in the fall.

Evergreens may be successfully planted in September but not later. Spring is, however, the most natural season for their planting, and it may be extended considerably later in the season than is advisable for deciduous trees; but in the clear atmosphere of the west their planting cannot be safely postponed to as late a date as in the more humid atmosphere of the east.

Distance Between Trees in Orchard.

For apples of the large growing varieties 20x24 feet is far enough north of latitude 42 degrees in the open prairie country, while for trees of the habit of Tetofsky and Whitney No. 20, 14 to 16 feet north and south, and 18 feet between the rows gives room enough.

For plums and pears, 8x12 for the former, and for the latter, 12x16 feet is sufficient. Cherries should be planted with low heads, and not over eight feet apart north and south, so that one tree will soon protect another from the rays of the sun.

For currants and gooseberries 3x5 feet; raspberries, $2\frac{1}{2}$ x5 to 6 feet, and every fifth row, 9 to 10 feet between the rows—especially if the rows have considerable length—that a team may be driven through for mulching or other purposes.

The number of plants or trees to a given piece of ground may be found by dividing the square feet in the given piece of ground by the number of feet occupied by one plant or tree. (43,569 feet make an acre.)

Strawberry plants for garden culture, per rod,	2x2	feet.....	75
Plants that form runners slowly, like the Wilson,	1x2	feet.....	125
Strawberry plants per acre,	$1\frac{1}{2} \times 3\frac{1}{2}$	feet.....	8,300
Blackberries per acre,	$3\frac{1}{2} \times 7$	feet.....	1,800
Trees per acre,	8x12	feet.....	450
Trees per acre.	12x16	feet.....	225
Trees per acre.	16x20	feet.....	113
Trees per acre.	20x24	feet.....	90
Trees per acre.	8x8	feet.....	680
Trees per acre.	4x8	feet.....	1,360
Trees per acre.	4x22	feet.....	910

Remarks.

Don't ask us to sell first-class stock at a second-class price. We can't do that and live. We aim to sell you stock that will live, grow and do you good. We keep up to date with all valuable improvements for this climate and will not ask you to buy new things solely for the money there is in them. We believe the interest of our patrons is our interest.

And in a climate of great extremes of temperature, it is necessary to select only the most hardy trees and plants, that we may be spared, as much as possible, unnecessary disappointment and expense.

With this purpose in view, we have labored untiringly that we might add something to the stability and progress of horticulture in the northwest. And while we cannot offer as long a list of either fruit or ornamental trees or shrubs as growers east of the lakes, on account of our drier and more extreme winter climate, we can yet offer a good selection, that with proper culture, are either wholly or reasonably adapted to this climate.

In a brief circular like this we cannot enumerate the variety and extent of our products, but only have space to say that we keep a full line of the best adapted varieties of fruits, shrubs and plants, both ornamental and useful, that can be gathered from an experience of over thirty years of arduous, pains taking labor, right in the middle of the great prairie region of the northwest. To those who are wanting root grafts, apple stocks, or one or two-year-old trees of the most approved varieties, either for their private orchards or to start a nursery, we can offer inducements in the way of price and varieties that we think will be highly satisfactory.

Correspondence in reference to any and all nursery stock desired is earnestly solicited.

C. G. PATTEN,
Charles City, Iowa.